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| 09/941,044      | 08/28/2001  | Charles C. Habeger JR. | 7648.0022           | 5732             |

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EXAMINER

VAN, QUANG T

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 12/16/2003

121

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/941,044

Applicant(s)

HABEGER ET AL.

Examiner

Quang T Van

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 9 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. The previous Office action (paper # 10) has a typo error in grouped of claims and it correctly should be

Group I (claims 1-9 and 17-19), drawn to a microwave waveguide,  
classified in class 333, subclass 239.

Group II (claims 10-16), drawn to a method of drying a paper web,  
classified in class 219/ subclass 691.

In paper No.10, Applicant's election with traverse of Group I (claims 1-9 and 17-19) in Paper No. 11 is acknowledged. The traversal is on the ground(s) that "no serious burden on the Examiner exists if the claims are examined in a single application". This is not found persuasive because the inventions are distinct for the reason given in previous office action and have acquired a separate status in the art as shown by their different classification and because of their recognized divergent subject matter and the search of Group I is not required for Group II and vice versa, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

***Specification***

1. The abstract of the disclosure is objected to because it should avoid using phrases which can be implied, such as, " This disclosure concerns", "The disclosure defined by this invention", "This disclosure describes", "**is disclosed**", "are disclosed", "**the invention relates to**" etc. Correction is required. See MPEP § 608.01(b).

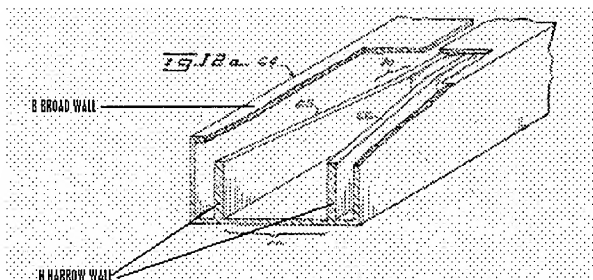
***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bleackley (US 3,555,232). Bleackley microwave waveguides (10d) comprising broad walls (B, figure below) separated by and electromagnetically coupled with at least one narrow wall has a nonlinear profile (65, 66).



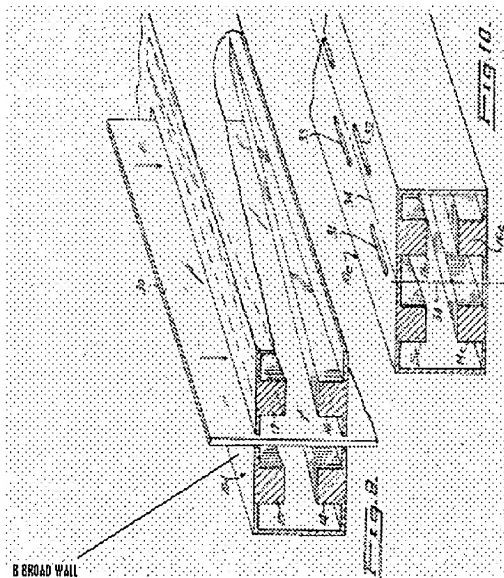
***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleackley (US 3,555,232) in view of Harris et al (US 6,242,726).

Bleackley discloses microwave waveguides (10d) comprising broad walls (B, figure below) separated by and electromagnetically coupled with at least one field modifier (14-17). Bleackley does not disclose the modifier has a nonlinear profile. Harris discloses a modifier (62) has nonlinear profile. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Bleackley a modifier has nonlinear profile as taught by Harris in order to improve the uniformity of heating.



6. Claims 9 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not show or suggest said field modifier is configured to provide a relative slot height profile as define by

$$h(z) = (b/\pi) \sin^{-1}[(1/\sin^2(\pi h_0/b) - 2\omega Z \epsilon_0 \epsilon'' / tz/b)^{-1/2}]$$
 as recited in claim 9; and said narrow wall is adjustable as recited in claim 18.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Lewis et al (US 6,020,579) discloses a microwave applicator having a mechanical means for turning. Drozd et al (US 6,396,034) discloses method and apparatus for electromagnetic exposure of planar or other materials.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T Van whose telephone number is 703-306-9162. The examiner can normally be reached on 8:00Am 7:00Pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 703-308-2634. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-

0861.



QV  
December 9, 2003



Quang T Van  
Primary Examiner  
Art Unit 3742